

ABSTRACT OF THE DISCLOSURE

An optical wavelength division multiplexing network which can carry out large-capacity access service with a simple constitution is provided. In an optical network comprising a plurality of layers, a highest level network comprises a ring network having a center node and remote nodes; an intermediate level network comprises a ring centered around a node belonging to the higher level network, and a lowest level network comprises a star network centered around an access node which multiplexes traffic from a plurality of ONU, the ONU and the access node being directly joined together by optical fibers; the center node belonging to the highest level network and the ONU establish a direct communication path by using lights of different wavelengths; at nodes provided therebetween, the optical signals are not electrically processed but are amplified, branched, and routed.